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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,815	04/13/2001	Shinobu Hasegawa	Q64020	5723

7590

04/18/2002

SUGHRUE, MION, ZINN, MACPEAK & SEAS  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037-3202

EXAMINER
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JIMENEZ, MARC QUEMUEL

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 04/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/833,815

Applicant(s)

HASEGAWA ET AL.

Examiner

Marc Jimenez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: \_\_\_\_

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## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 1-7** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims require the use of an "unshrinkable sleeve". The specification does not clearly describe how a sleeve having an inner diameter which is smaller than the outer diameter of a core is placed onto the core. It would appear that the material of the sleeve would have to be shrinkable because otherwise it is unclear how the sleeve would be attached to the outer surface of the core. Also, the claims require that the sleeve be heat-welded onto the surface of the roller. There is insufficient disclosure describing what "heat-welding" encompasses.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1-7** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "the roller" in line 3 which lacks proper antecedent basis because the claim recites "a roller member" and "a metallic core roller" in line 1.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 1-4** rejected under 35 U.S.C. 102(b) as being anticipated by Jinzai et al. (5,717,988).

Jinzai et al. teach a roller member **1** comprising a metallic (col. 3, line 40) core **1c** roller and an unshrinkable sleeve **1a** (see also fig. 2, ie. "shell") which is heat-welded (col. 3, line 50 and col. 5, line 6 to col. 6, lines 28-29) onto the surface of the roller **1c**, which sleeve **1a** is formed from an elastomer material (col. 3, lines 25-26) and has a Young's modulus of 120-200MPa (since the materials in the elastomer material of Jinzai et al. is formed of the same

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material as applicant's elastomer material, for example PFA, it is inherent that these materials exhibit a modulus of 120-200MPa).

With respect to the limitations regarding how roll is formed, for example by "heat-welding" and with a "welding force of 0.1kg/cm or more", note that the method of forming the device is not germane to the issue of Patentability of the device itself. Therefore, these limitations have not been given patentable weight. Note that the unshrinkable sleeve has a surface resistivity of the claimed ranges (see for instance, table 1).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Jinzai et al. in view of Takahashi et al. (6,117,257).

Jinzai et al. teach the invention cited above with the exception of having a surface roughness of 5micrometer or less.

Takahashi et al. teach a surface roughness of 5micrometer or less (col. 5, lines 61-62).

It would have been obvious to one of ordinary skill in the art, at the time of the invention,

to have provided the invention of Jinzai et al. with a surface roughness of 5micrometers or less, in light of the teachings of Takahashi et al., in order to provide excellent transfer characteristics (as suggested by Takashi et al. at col. 5, lines 63-64).

10. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Jinzai et al.

Jinzai et al. teach the invention cited above with the exception of the thickness of the unshrinkable sleeve being 30-200micrometer.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to make the thickness of the sleeve 30-200micrometer because applicant has not disclosed that a sleeve thickness of 30-200micrometer provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either the sleeve thickness of Jinzai et al. or the claimed 30-200micrometer thickness because both thicknesses perform the same function of providing an outer layer that is in contact with imaging members. Also, official notice is taken that the use of sleeve thicknesses between 30-200micrometer is well known in the art of rollers.

11. **Claims 1-3 and 5-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Conner et al. (5,515,757) in view of Takahashi et al. (6,117,257).

O'Conner et al. teach a roller member comprising a metallic core roller **11** and an unshrinkable sleeve **20** on the surface of the roller **11**, which sleeve **20** is formed from an elastomer material (col.6, line 56).

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O'Conner et al. teach the invention cited above with the exception of teaching the specifics of the elastomeric material, specifically with a Young's modulus of 120-200MPa.

Takahashi et al. teach an elastomeric material used for a sleeve that is made of a fluorine resin (PFA) tube (col. 6, lines 48-49). It is inherent that sleeves made of PFA have a Young's modulus of 120-200MPa since applicant has identified on page 4, lines 18-24 of applicant's specification that elastomeric materials having a Young's modulus of 120-200MPa include material selected from the group including fluorine-containing elastomers such as PFA.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of O'Conner et al. with an elastomeric material having a Young's Modulus of 120-200MPa, in order to provide an elastomeric material that can be easily fastened to the core roller.

With respect to the limitations regarding how roll is formed, for example by "heat-welding" and with a "welding force of 0.1kg/cm or more", note that the method of forming the device is not germane to the issue of Patentability of the device itself. Therefore, these limitations have not been given patentable weight. Note that Takahashi et al. teach a surface roughness of 5micrometers or less (col. 5, line 62) and a sleeve thickness of 30-200micrometers (col. 6, line 22). O'conner et al. teach that the unshrinkable sleeve has an inner diameter smaller than the outer diameter of the core roller (col. 6, lines 55-57).

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tasse (4,930,205) teaches the use of a cylindrical sleeve which has a smaller inner

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diameter than a roller core outer diameter. Shoffner (3,749,621) teaches the use of a cylindrical sleeve which is melt bonded to the outer surface of a roller core.

***Contact Information***

13. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to

[CustomerService3700@uspto.gov](mailto:CustomerService3700@uspto.gov).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is **703-306-5965**.

The examiner can normally be reached on **Monday-Thursday and the second Friday of the bi-week, between 9am-6pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on 703-308-1806. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.



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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Other helpful telephone numbers are listed for applicant's benefit.

Allowed Files & Publication	(703) 308-6789 or (888) 786-0101
Assignment Branch	(703) 308-9723
Certificates of Correction	(703) 305-8309
Drawing Corrections/Draftsman	(703) 305-8404/8335
Petitions/Special Programs	(703) 305-9285
Terminal Disclaimers	(703) 305-8408
PCT Help Desk	(703) 305-3257

If the information desired is not provided above, or a number has been changed, please call the general information help line below.

Information Help line	1-800-786-9199
Internet PTO-Home Page	<a href="http://www.uspto.gov/">http://www.uspto.gov/</a>

MJ

April 11, 2002

J. C. R. R.  
Am 5726